

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Leland SHAPIRO

Appl. No. 09/518,076

Filed: March 3, 2000

Group Art Unit: 1653

Examiner: Mohamed, A.

For: **INHIBITORS OF SERINE PROTEASE ACTIVITY, METHODS AND
COMPOSITIONS FOR TREATMENT OF HERPES VIRUSES**

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of
Patents and Trademarks
Washington, D. C 20231

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO-1449. It is respectfully requested that the documents be expressly considered and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

AUTHORIZATION

This Information Disclosure Statement is being filed after receipt of the first Office Action but before the Notice of Allowance. Please find enclosed a check in the amount of \$180.00.

The Commissioner is hereby authorized to charge any additional fees which may be required for this submission, or credit any overpayment to deposit account no. 50-0436.

Respectfully submitted,

PEPPER HAMILTON LLP



Thor B. Nielsen
Registration No. 45,528

Gilberto M. Villacorta
Registration No. 34,038

Hamilton Square
600 Fourteenth Street, N.W., Suite 500
Washington, D.C. 20005-20004
Telephone: (202) 220-1200
Facsimile: (202) 220-1665
Date: August 8, 2001

DC: #181756 v1 3W8S011.WPD 114232-109

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

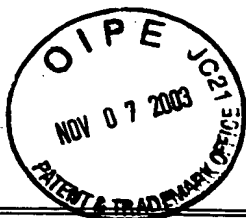


Leland SHAPIRO
SHEET 2 OF 4

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)					ATTY. DOCKET NO. 114232.109		SERIAL NO. 09/518,076	
					APPLICANT Leland SHAPIRO			
					FILING DATE May 3, 2000		GROUP 1614	
FOREIGN PATENT DOCUMENTS								
EXAMINER'S INITIALS		PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation Yes No	
	BA	WO95/28422	10/26/95	PCT				
	BB	WO95/34538	12/21/95	PCT				
	BC	WO96/12021	4/25/96	PCT				
	BD	WO96/14067	5/17/96	PCT				
	BE	WO97/31937	9/4/97	PCT				
	BF	WO00/52034						
	BG	WO99/43308	9/2/99					
	BH	WO94/07525 ~		WO				
EXAMINER					DATE CONSIDERED			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

TECH CENTER 1600/2900
NOV 13 2003
CEIVE



Leland SHAPIRO
SHEET 3 OF 4

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)		ATTY. DOCKET NO. 114232.109	SERIAL NO. 09/518,076
		APPLICANT Leland SHAPIRO	GROUP 1614
		FILING DATE May 3, 2000	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
CA	Altieri, D.C. <i>J Leukoc Biol</i> 1995, 58, 120127		
CB	<i>Animal Cell Culture</i> , R. I. Freshney, ed., 1986		
CC	Auerswald et al., "Recombinant leech-derived trypsin inhibitor: construction, production, protein chemical characterization and inhibition of HIV-1 replication", <i>Biol Chem Hoppe Seyler</i> , 375(10):695-703 (1994)		
CD	Beal, M.F., "Mitochondria, Free Radicals, and Neurodegeneration", <i>Curr. Opin. Neurobiol.</i> , 1996, 6, 661-666		
CE	Beck, K.F. et al. in <i>J Exp Biol</i> 1999, 202, 64553		
CF	Cilberto et al., 1995, <i>Cell</i> , 41:531-540		
CG	Deigner, H.P. and R. Kinscherf, "Modulating Apoptosis: Current Applications and Prospects for Future Drug Development", <i>Curr Med Chem</i> 1999, 6, 399-414		
CH	Dery, O. and Bunnett, N.W. <i>Biochem Soc Trans</i> 1999, 27, 246-254		
CI	Dery, O. et al. <i>Am J Physiol</i> 1998, 274, C 1429-C 1452		
CJ	Ding, A. et al., in <i>J. Immunol.</i> 1990, 145, 940		
CK	Goureau, O. et al., in <i>Proc. Natl. Acad. Sci. U.S.A.</i> 1993, 90, 4276		
CL	Gu M, Rappaport J, Leppla SH., "Furin is important but not essential for the proteolytic maturation of gp160 of HIV-1", <i>FEBS Lett</i> , 22;365(1):95-7 (May 10, 1995)		
CM	Heck, D. E. et al., in <i>J. Biol. Chem.</i> 1990, 267, 21277		
CN	Inocencio et al., "Endoprotease activities other than furin and PACE4 with a role in processing of HIV-1 gp160 glycoproteins in CHO-K1 cells", <i>J Biol Chem</i> , 272(2):1344-8 (1997)		
CO	Jabs, Thorsten, "Reactive Oxygen Intermediates as Mediators of Programmed Cell Death in Plants and Animals", <i>Biochem Pharmacol</i> 1999 57, 231-245		
CP	Kaufmann, Scott H., Serge Desnoyers, Yvonne Ottaviano, Nancy E. Davidson, and Guy G. Poirier, "Specific Proteolytic Cleavage of Poly(ADP-ribose) Polymerase: An Early Marker of Chemotherapy-induced Apoptosis", <i>Cancer Res</i> 1993, 53, 3976		
CQ	Kidd, Vincent J., PROTEOLYTIC ACTIVITIES THAT MEDIATE APOPTOSIS, <i>Annu Rev Physiol</i> , 1998, 60, 533		
CR	Kido H, Niwa Y, Beppu Y, Towatari T. <i>Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and Sendai virus. Adv Enzyme Regul</i> 1996;36:325-47		
CS	Kirkeboen, K.A. and Strand, O.A. in <i>Acta Anaesthesiol Scand</i> 1999, 43, 275		
CT	Langer, R. <i>Nature</i> 1998, 392, 5		
EXAMINER		DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

RECEIVED
NOV 13 2003
TECH CENTER 1800/2900



Leland SHAPIRO

SHEET 4 OF 4

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)		ATTY. DOCKET NO. 114232.109	SERIAL NO. 09/518,076
		APPLICANT Leland SHAPIRO	
		FILING DATE May 3, 2000	GROUP 1614
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)			
CU	Best, P.J.M., et al., <i>Arterioscler Thromb Vasc Biol</i> 1999, 19, 14		
CV	Lomas DA, Elliott PR, Carrell RW. <i>Commercial plasma alpha1-antitrypsin (Prolastin) contains a conformationally inactive, latent component.</i> <i>Eur Respir J</i> 1997 Mar;10(3):672-5		
CW	Lowenstein, C. J. and Snyder, S.H. in <i>Cell</i> 1992, 70, 705-707		
CX	Lowenstein C. J. et al. in <i>Proc. Natl. Acad. Sci. USA</i> , 1993, 90, 9730		
CY	McCall, T.B. et al., in <i>Biochem. Biophys. Res. Commun.</i> 1992,186, 680		
CZ	Meylan et al., "HIV infectivity is not augmented by treatment with trypsin, Factor Xa or human mast-cell tryptase", <i>AIDS</i> , 6(1):128-30 (1992)		
CAA	Miranda et al., "Isolation of the human PC6 gene encoding the putative host protease for HIV-1 gp160 processing in CD4+ T lymphocytes", <i>Proc Natl Acad Sci U S A</i> , 93(15):7695-7700 (1996)		
CAB	Molle W. et al. in <i>J Immunol</i> 1997, 159, 3555		
CAC	Morel, J. B. and Dangle, J.L., <i>Cell Death Differ</i> 1997, 4, 67 1		
CAD	Nathan, C. in <i>FASEB J.</i> 1992, 6, 3051		
CAE	Ohnishi et al., "A furin-defective cell line is able to process correctly the gp160 of human immunodeficiency virus type I", <i>J Virol</i> , 68(6):4075-99 (1994)		
CAF	Okumura et al., "The extracellular processing of HIV-1 envelope glycoprotein gp160 by human plasmin", <i>FEBS Lett</i> , 442(1):39-42 (1998)		
CAG	Patel R.P., et al. in <i>Biochim Biophys Acta</i> 1999,1411,385-400		
CAH	Popko B. and Baerwald, K. D. in <i>Neurochem Res</i> 1999, 24, 33 1 (Abstract)		
CAI	Premack, B. A. and Schall, T. J., "Chemokine Receptors: Gateways to Inflammation and Infection", <i>Nature Medicine</i> , 2, 1174-1178 (1996)		
CAJ	Punjabi, C. J. et al., in <i>J. Immunol.</i> 1992, 149, 2179		
CAK	<i>Remington's Pharmaceutical Sciences</i> 1990, pp. 1519-1675, Gennaro, A. R., ed., Mack Publishing Company, Easton, PA.		
CAL	Sambrook, Fritsch & Maniatis, <i>Molecular Cloning: A Laboratory Manual, Second Edition</i> 1989, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y.		
CAM	Schini et al. in <i>Circ Res</i> 1994, 74, 24		
CAN	Schwartz, et al., "Antiviral activity of the proteasome on incoming human immunodeficiency virus type I", <i>J Virol</i> , 72(5):3845-50 (1998)		
CAO	Smith, M. E. in <i>Neurochem Res</i> 1999, 24, 261		
CAP	Wood, E.R. et al. in <i>Biochem Biophys Res Commun</i> 1993,191, 767-74		
EXAMINER		DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.